products rather than any networking issue. If such non-network related price discrimination is countenanced, ILECs will be free over time to unload whole categories of local traffic from the baseline local traffic exchange system simply by shifting it to a non-standard local calling plan. The potential for anticompetitive mischief is plain.

Similarly, the ILECs are requiring ACSI to pay a "transit" or "through-put" charge for the privilege of connecting to another CLEC, area independent LECs or CMRS providers at the ILEC tandem. Some ILECs are refusing to allow CLECs to cross-connect directly to these other local carriers at their collocated facilities. This enables the ILEC to establish its local tandem as a bottleneck gateway for all traffic passed between non-ILEC local carriers. Requiring the payment of transiting charges where cross-connection is feasible unnecessarily inflates the costs of all local carriers competing with the ILEC and provides the ILEC with a significant artificial cost advantage over its rivals.[45]

In addition, some ILECs have required the use of one-way trunks for traffic exchange, where two-way trunks can be used more efficiently. Other ILECs require the use of physically distinct trunk groups for each local traffic type. These requirements sacrifice efficient and economic traffic engineering in favor of the ILECs' desire to artificially segregate local traffic types for their own measurement, billing and jurisdictional separation purposes.

---

[45] Notably, the ILECs are routinely pricing these "transit" or "through-put" charges far above cost. ACSI estimates that the proposed transiting rates proposed to it range from 3 to 8 times the TSLRIC cost of providing the service. It is interesting to note that the proposed prices vary among ILECs by as much as 300 percent. ACSI has no objection to a transit charge if it is cost-based *and* the CLEC has the option to cross-connect directly.

To address these problems, ACSI suggests that the Commission integrate the following minimum standards into its implementing regulations:

- LECs must offer local traffic exchange for an entire local calling area through interconnection at a single local tandem; although interconnectors can opt at their discretion to connect directly to end offices.

- LECs must make available interconnection over two-way trunks, and may require only the minimum number of trunk groups technically required to facilitate traffic completion.

- "Local" calling includes all traffic that originates and terminates within the toll-free calling area of any calling plan offered by the receiving LEC, including calls placed to EAS areas, Extended Area Calling, and other local calling routes.

- "Local" calling includes all calls placed to an end user served by an end office that subtends to the tandem to which the traffic is delivered, regardless of whether the receiving LEC classifies the traffic as local, toll, transit or otherwise in its own tariffs.

- "Local" calling includes all calls placed to customers of an adjacent independent LEC in areas where the receiving LEC and the independent LEC have a traffic exchange agreement.

- "Local" calling includes all calls placed to other CLECs and CMRS providers, that have interconnected with the ILEC for local traffic exchange.

- LECs may not apply different rate structures or levels for different local traffic types.

- LECs must permit other local carriers with whom they interconnect to cross-connect directly with one another at any technically feasible point.

Adoption of these standards will help ensure that a free, unfettered exchange of local traffic occurs as is required by Section 251(b)(5).

B. "Bill and Keep" Should Be an Available Method of Reciprocal Compensation for Exchange of Local Traffic.

As the 1996 Act recognizes, it is critical that compensation for mutual traffic exchange between CLECs and ILECs be truly "reciprocal." Specifically, Section 252(d)(2) states that the terms for reciprocal compensation are not just and reasonable unless they: (1) provide for the "mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier," and (2) "determine such costs on the basis of a reasonable approximation of the additional costs of terminating such calls." Enforcement of these standards furthers the twin goals of ensuring that all LECs receive reasonable compensation for transporting and terminating the traffic of competing LECs and that ILECs do not charge excessive rates for such services.

ACSI agrees with the FCC's preliminary conclusion that it is authorized by the 1996 Act to promulgate rules to guide the states in applying Section 252(d).[46] Indeed, ACSI submits that fairly rigid guidelines are required in light of the 1996 Act's statement that it does not authorize the FCC or any state to "engage in any rate regulation proceeding to establish with particularity the additional costs of transporting or terminating calls." Since detailed rate regulation proceedings may be foreclosed, the Commission should establish explicit policies that provide negotiators and states alike with a clear understanding of what is required to comply with the 1996 Act's reciprocal compensation requirements.

In ACSI's view, reciprocal compensation should include the "bill and keep" method. Under bill and keep arrangements, neither of the interconnecting networks charges the other

---

[46] *Notice* ¶ 226.

for terminating traffic that originated on the other network. Each network recovers from its own end users the cost of both originating traffic delivered to the other network and terminating traffic received from the other network. The principal attractions of bill and keep arrangements -- and the reason they are properly regarded as being pro-competitive -- are their simplicity, ease of administration and economy.

Most LEC (ILEC and CLEC alike) networks currently lack the ability to measure the volume of exchanged traffic, and adding that ability would be very costly if done outside of normal network upgrades.[47] Requiring such measurement capabilities will delay deployment of CLEC networks, and materially increase the capital cost of construction. As the Colorado PUC recently found after studying the issue, "[i]t is apparent that there is presently no proven mechanism readily available to new entrants for measuring terminating local traffic. Thus, the costs of measurement and billing under a reciprocal compensation arrangement are unknown at the present time."[48] Many ILECs which have offered flat-rated local services in the past also would have to install measurement systems to monitor and audit outbound traffic, a cost which ultimately would be borne by consumers.[49] Bill and keep also avoids the necessity of incurring the continuing expense of measuring,

---

[47] *Implementing Local Competition Under the Telecommunications Act of 1996. A proposed Handbook for the FCC*, Association of Telecommunications Services (ALTS), March 1996 [hereinafter ALTS Handbook], p. 20.

[48] *In the matter of Proposed Rules Regarding Implementation of §§ 40-15-101, et seq. — Requirements Relating to Interconnection and Unbundling*, Colorado PUC Docket No. 95R-556T, Commission Decision Adopting Rules, mailed date, April 1, 1996 [*Colorado PUC Interconnection Order*], at 34.

[49] *See In Re: Resolution of Petition(s) to Establish Nondiscriminatory Rates, Terms, and Conditions for Interconnection Involving Local Exchange Companies and Alternative Local Exchange Companies*, Fla. PSC Docket No. 950985-TP, Order No. PSC-96-0445-FOF-TP, issued March 29, 1996 [*Florida PSC Local Interconnection Order*], at 11.

recording, auditing, billing and collecting for exchanged traffic. As the Oregon PUC observed "[t]his is advantageous during the initial stages of competition, because measurement costs impose a greater relative burden on new entrants, who must spread the capital cost of such systems over much smaller volumes of traffic."[50]

Another advantage to bill and keep arrangements is that they provide carriers with the incentive to adopt an efficient network architecture. Any compensation scheme in which the terminating carrier is able to transfer termination costs to the originating carrier reduces the incentive of the terminating carrier to use an efficient call termination network design.[51] These factors led the Florida PSC to conclude that bill and keep "appears to be the most efficient, least-cost method of interconnection, and should provide the lowest barrier to entry" of any system.[52]

Precisely because bill and keep arrangements offer the benefits of simplicity and economy, they are routinely employed by ILECs to exchange traffic among themselves. Each of the ILECs with whom ACSI currently is negotiating has admitted that it currently utilizes bill and keep arrangements to exchange local traffic with neighboring ILECs, and has done so for many years. Indeed, such bill and keep traffic exchange arrangements between ILECS should be filed for state commission approval as negotiated agreements under Section

---

[50] *In the matter of Electric Lightwave, Inc. for a Certificate of Authority to Provide Telecommunications Service in Oregon*, Order 96-021, entered January 12, 1995, at 52.

[51] *Florida PSC Local Interconnection Order*, at 11

[52] *Id.* at 13.

252(a)(1) and, more importantly, made available on a nondiscriminatory basis to non-party carriers pursuant to the terms of Section 252(i).[53]

Of course, apart from the need to prevent ILECs from providing preferential interconnection arrangements with each other, the benefits of administrative simplicity could be outweighed by the detriments of in-kind transfers if the traffic levels exchanged varied materially among carriers. Simply put, a LEC that was obligated to terminate materially more local traffic than it delivered to its counterpart theoretically could bear a disproportionate share of the costs of termination under a bill and keep system. But critics of bill and keep have uniformly failed to produce any evidence of materially uneven traffic loadings, despite the fact that local co-carrier arrangements have been in place in some areas for more than a year. After careful examination of the issue, many state commissions have found that there is no significant likelihood of a dangerous traffic imbalance in the near term.[54]

Indeed, at least in the short run, it is clear that the demonstrable benefits of a bill and keep system far outweigh the theoretical detriments. As a consequence, numerous states have adopted bill and keep, at least on an interim basis, including Oregon,[55] Washington,[56]

---

[53] *See* pp. 9-10, *supra.*

[54] *See, e.g., Colorado PUC Local Interconnection Order*, at 31, 34-35.

[55] *In the matter of Electric Lightwave, Inc. for a Certificate of Authority to Provide Telecommunications Services in Oregon*, Order 96-021, entered January 12, 1995, at 52 (two year interim basis).

[56] *Washington Utilities and Transportation Commission v. US West*, Docket Nos. UT-941464-65, UT-950146, UT-950265, Fourth Supplemental Order Rejecting Tariff Filings and Ordering Refiling (Wash UR, released Oct. 31, 1995) (adopting bill and keep as an interim measure).

California,[57] Michigan,[58] Florida,[59] Texas,[60] Connecticut, and Colorado.[61] Like these state regulators, the FCC should find affirmatively that bill and keep is the preferable near-term reciprocal compensation mechanism. ACSI requests that the Commission specifically prescribe the use of bill and keep as an option for a three-year interim, start-up period, unless the parties agree voluntarily among themselves to utilize a different arrangement. Both federal and state regulators, as well as the carrier participants, can evaluate the advisability of replacing bill and keep with another system during this interim period, armed with the benefit of actual historical experience.

Notably, Congress specifically recognized bill and keep as one acceptable means of implementing the reciprocal compensation requirements of Section 251(b)(5). Section 252(d)(2)(B) provides that the Act does *not* "preclude arrangements that afford the mutual recovery of costs through the offsetting of reciprocal obligations, including arrangements that waive mutual recovery (such as bill and keep arrangements)." Indeed, the legislative history observes that "mutual and reciprocal recovery of costs . . . may include a range of compensation schemes, such as an in-kind exchange of traffic without cash payment (known

---

[57] *Order Instituting Rulemaking on the Commission's Own Motion into Competition for Local Exchange Service*, Cal. PUC R. 95-04-043, order mailed Dec. 22, 1995, at 31 (one year interim basis).

[58] *In the Application of City Signal, Inc. for an Order Establishing and Approving Interconnection Arrangements with Ameritech Michigan*, Michigan PSC Case No. U-10647, Opinion and Order dated Feb. 23, 1995, at 19-30.

[59] *Florida PSC Local Interconnection Order*, at 10-16.

[60] Proposed Texas PUC substantive rule, § 23.97(d)(4)(B) (*nine-month interim basis if unable to agree*).

[61] *Colorado PUC Local Interconnection Order*, at 34 (interim basis of three years or six months after implementation of a number portability data base).

as bill and keep arrangements)."[62] The fact that bill and keep is the only compensation paradigm specifically referenced by Congress implies that the framers thought it likely that the system would be advisable during at least an initial period. The Commission should do the same, and act to prevent ILECs from using the requirement of measurement and billing of reciprocal compensation for local traffic exchange as a pretext for delaying the development of local competition.

C. ILEC Demands for Non-Cost Based Reciprocal Compensation Rates Must Be Rejected.

When prospective local interconnectors cannot agree to bill and keep or another mutually acceptable compensation arrangement, it will be necessary to establish rates applicable to mutual traffic exchange. The Act creates a tripartite standard intended to ensure that compensation is strictly limited to that which is required to compensate the terminating LEC for its incremental cost associated with the completion of the traffic delivered to it. Namely:

- Compensation must be "*mutual* and *reciprocal*";
- Compensation should enable "*recovery* by each carrier *of costs* associated with the transport and termination"; and
- Costs to be recovered are determined on the basis of a "reasonable approximation of the *additional costs* of terminating such calls."[63]

Nonetheless, as discussed hereafter, ACSI has found during its interconnection negotiations that most ILECs have chosen to ignore all three of these explicit statutory requirements. Thus, it is important that the Commission craft regulations further clarifying them.

---

[62] Joint Explanatory Statement, p. 120.

[63] 47 U.S.C. § 251(d)(2) (emphasis added).

The principal problems encountered to date with the ILEC reciprocal compensation proposals fall into two general categories: (1) demands for payment of asymmetrical universal service subsidy charges, and (2) use of non-cost based pricing for symmetrical charges. The first problem is the simplest to deal with. Some ILECs are demanding that CLECs pay them a special usage-based rate element intended to reimburse them for costs allegedly associated with their universal service or carrier of last resort obligations. SBC, for example, has requested that ACSI pay it a "Universal Service" rate element per MOU which is defined in their proposal as "compensation paid . . . to SWBT for SWBT's universal service and carrier of last resort obligations." Similarly, US West has demanded payment by ACSI of a "Transitional Rate" per MOU, which is defined as a charge which "recovers USWC's current subsidies flows, such as that from business exchange services to residential exchange services." Under these proposals, the charge would be collected by the ILECs, but no similar rate element would be paid to ACSI.

Such special universal service charges are plainly contrary to the requirements of Section 252(d)(2). Since they may be collected only the ILEC, they are neither "mutual" nor "reciprocal." Indeed, they are precisely the opposite, amounting to asymmetrical charges which enable ILECs to reap net profits from each minute of traffic exchanged. In addition, such charges are by definition not designed to ensure "recovery . .. of costs associated with the transport and termination" of traffic routed to it by the CLEC. The costs recovered, if any, have no relation to the traffic delivered by the CLECs. In reality, they claim revenues to make the ILECs whole for business lost to competition.[64] Simply put, the Commission

---

[64] Notably, the Commission and a special Joint Board are addressing the subject of (continued...)

should prohibit ILECs from creating any rate element which they are not willing to pay co-carrier CLECs.

The second problem with most ILEC-proposed mutual compensation systems is that they establish non-cost-based rate levels. The 1996 Act explicitly provides that compensation must be based solely on the "additional costs of terminating such calls."[65] This language can only be reasonably interpreted as allowing LECs to recover the *incremental costs* of terminating local traffic exchanged between them.[66] However, the ILECs with whom ACSI is attempting to negotiate traffic exchange agreements have routinely ignored this requirement and uniformly have proposed rates that include substantial allocations of embedded costs, overhead and other joint and common costs, and are set far above any incremental pricing standard.

The most common approach is for ILECs to adopt a switched access rate structure without the common carrier line charge ("CCL") (or its equivalent) rate element, and then mirror the *intrastate* switched access rates of the relevant state jurisdiction. The ILECs argue that the elimination of the CCL effectively deletes any subsidy flows from the rates. But this ignores the fact that the remaining elements have not been established on the basis of any incremental costing standard. All switched access charge elements include substantial allocations of joint and common costs under applicable federal and state access charge rules.

---

[64](...continued)
universal service funding separately in Docket 96-45, and the ILECs should not be allowed to prejudge the outcome of that proceeding by unilaterally imposing their own universal service funding requirements.

[65] 47 U.S.C. § 252(d)(2)(A)(ii).

[66] Strictly speaking, the language used would imply the mandatory use of a pure incremental cost standard as opposed to use of LRIC or TSLRIC costing.

Putting aside the question of whether such a pricing methodology is appropriate even in an interexchange access environment, it is plainly inconsistent with the incremental costing requirements established in the Act for the mutual exchange of local traffic.

ACSI submits that the Commission should put a quick end to these ILEC shenanigans by promulgating rules that require that rates for local traffic exchange be set at incremental cost. Moreover, such rates should be supported by properly conducted incremental cost studies. If ILECs are unwilling or unable to prepare such incremental cost studies, the rules should impose the use of bill and keep arrangements until such cost-based rates are fully developed. Explicit FCC guidelines are required to break the logjam that this issue has created in interconnection negotiations across the nation.

IV. UNBUNDLED NETWORK ELEMENTS (Section II.B.2(4)(c), ¶¶ 74-91)

A. Unbundling of ILEC Network Elements Will Provide a Critical Foundation For Local Competition.

Interconnection for purposes of local traffic exchange will "jump-start" competitive entry into the local switched services market, but it is interconnection with unbundled network elements under the 1996 Act that will facilitate and accelerate the deployment of actual alternative local exchange networks. Section 251(c)(3) requires ILECs to provide "nondiscriminatory access" to unbundled "network elements" at "any technically feasible point" and on "rates, terms and conditions that are just, reasonable and nondiscriminatory."[67] The 1996 Act defines "network element" very broadly, encompassing any "facility or equipment" used in providing any telecommunications service

---

[67] 47 U.S.C. § 251(c)(3).

as well as the "features, functions, and capabilities that are provided by means of such facility or equipment."[68] An ILEC must provide access to each facility currently employed in its network, and to the software, signalling, databases, and billing support information and capabilities with which the facility interacts. The definition also requires access to operational support interfaces such as order entry, maintenance, or network status systems.[69]

As the Commission has tentatively concluded, the 1996 Act requires that network elements be made available at multiple levels of functionality.[70] If a facility or its features, functions, or capabilities may be described at multiple levels of functionality, the 1996 Act requires an ILEC to provide access at each level, as determined by the requesting carrier. For example, as explained below, the local loop -- the path between the ILEC central office and the subscriber inside wire -- is both a single network element and also a series of elements performing feeder, distribution and concentration functions. Both the entire loop and its components fit the definition of a "facility or equipment used in the provision of a telecommunications service."[71] The statute does not require a determination of which level "best" meets the definition of "network element": since both meet the requirements, both should be made available. It should be left to the requesting co-carrier, not the ILEC, to determine which level of functionality best meets the CLEC's needs.

---

[68] 47 U.S.C. § 153(45).

[69] *Id.* ("network element" includes access to "information . . . used in the transmission, routing, *or other provision* of a telecommunications service") (emphasis added).

[70] *Notice* at ¶ 83.

[71] 47 U.S.C. § 153(45).

The 1996 Act also requires that access be made available "on an unbundled basis." This requirement "foster[s] competition by ensuring that new entrants wishing to compete with incumbent LECs can purchase access to those network elements that they do not possess, without paying for elements that they do not require."[72] As the Illinois Commerce Commission has commented, "[t]he full pro-competitive benefits of reducing the capital cost barriers to entry can be achieved only if the incumbent LECs are required to sell their competitors only those network components and functionalities that new LECs need."[73]

Strict and swift implementation of the 1996 Act's network unbundling requirements is critical to the development of alternative local networks. ACSI and other CLECs stand ready to construct local networks across the nation, but both the capital requirements and lead times are enormous. It will be many years (if ever) before CLECs can completely replicate local networks purchased by ILECs with a century-long monopoly revenue stream. AT&T, for example, has estimated that an investment of $29 billion would be required to construct new facilities able to reach only 20 percent of the 117 million access lines served by the BOCs.[74] For this reason, Congress recognized that "it is unlikely that competitors will have a fully redundant network in place when they initially offer local service, because the investment necessary is so significant.[75] The ability to purchase access to ILEC network elements will ameliorate this problem by allowing CLECs such as ACSI to enter the market on a phased-

---

[72] *Notice* at ¶ 75.

[73] *See Proposed Introduction of a Trial of Ameritech's Customer's First Plan in Illinois*, Illinois Commerce Commission Docket No. 94-0096, Order released April 7, 1995, at 47-48.

[74] AT&T Ex Parte Submission to FCC, dated March 18, 1996.

[75] Joint Explanatory Statement, p. 148.

in-basis. Competitors can construct their own facilities on a reasonable timetable, and round out their own networks with network elements purchased form the ILECs. Without aggressive implementation of the unbundling requirements of Section 251(c)(3), extensive deployment of alternative local networks will be delayed for many years. Thus, ACSI commends the close attention paid to the topic in the *Notice*, and urges the Commission to proceed with the adoption of detailed implementing rules.

B. The FCC Should Establish the Minimum Level of Unbundling That All ILECs Must Provide (¶¶ 76-82).

The *Notice* concludes that the Commission should identify the elements that, at a minimum, must be made available on an unbundled basis.[76] ACSI agrees. A national baseline will facilitate CLEC market entry by minimizing design costs, by allowing new entrants to achieve economies of scale, and by fostering equipment standardization and interoperability.[77] With the assurance that a consistent basic structure will be available, a CLEC can configure its network more efficiently. A baseline also should reduce the areas of contention between ILECs and CLECs, thereby speeding the negotiation process.[78]

ACSI also agrees with the Commission's tentative conclusion that Section 251(d)(2) requires it to define a non-exhaustive list of network elements for unbundling.[79] ILECs should not be excused from providing access to additional elements simply because the FCC has not yet identified them. The purpose of establishing a list of network elements at a

---

[76] *Notice* at ¶ 77.

[77] *Notice* at ¶ 79.

[78] *Id.*

[79] *Notice* at ¶ 77.

national level is to ensure that the national policy of promoting local competition is not thwarted by states that refuse to order meaningful access to the ILEC's network. If a state wishes to open up the network more than currently is required by the Commission, on the other hand, and that action is consistent with Section 251(d)(2) and the national goals in the 1996 Act, it should be permitted. Indeed, the states can serve as laboratories for identification and experimentation with additional network elements. Therefore, states should be free to require nondiscriminatory access to more elements than have been identified by the Commission.[80] Periodically, the FCC should examine these additional elements adopted by the states to see if Section 251(d)(2) requires them to be added to the national list.

The Commission also should establish a specific process by which CLECs may request access to additional elements as ILEC networks evolve. ACSI suggests that the following procedure be established for requesting additional network elements. CLECs should be obligated to request additional network elements specifically and in writing. ILECs then should have a duty to make such elements available within 90 days, unless it is not technically feasible to do so. Complaints challenging an ILEC's refusal to make an element available should be filed at the FCC pursuant to its Section 208 formal complaint procedures, and the ILEC should have the burden of proving that it is not feasible to unbundle the network element at issue. Exceptions to availability should not be routinely granted and should be construed narrowly.

---

[80] It bears repeating, however, that Section 252(d)(2) provides that a CLEC have access to all of those network elements that it reasonably requires to provide the services *it* seeks to offer.

In addition to identifying the elements that must be made available, it is important to establish minimum performance standards governing their availability. Access alone is not sufficient; requesting carriers also must be able to use those elements to provide any telecommunications service they choose.[81] This requires assurances that the facility will perform with an expected degree of reliability. As explained in more detail in the next section, the Commission should require ILECs to satisfy minimum, objectively-verifiable criteria for provisioning intervals, diagnostics, maintenance, service requests and service intervals, billing, and data exchange. The guiding principle for these standards should be that the ILEC provide CLECs with at least the same level of quality and at least the same responsiveness as the ILEC provides itself. If, for example, ILEC customer care representatives have real-time access to diagnostic or network outage information, so must a CLEC purchasing unbundled access to the ILEC network. In addition, the provisioning of network elements should at a minimum be subject to all relevant national technical interfaces and standards developed by industry standard-setting organizations. Enforcement of these requirements should be available through the complaint process authorized by Sections 206 - 208 of the Communications Act.[82]

C. Unbundling of the Local Loop, Switching, Transport, Databases, Signaling and Ancillary Services Should Be Mandatory (¶¶ 92-116).

As discussed above, ACSI has been engaged in "negotiations" with a number of ILECs to obtain access to unbundled elements for some time. Access to some elements has

---

[81] 47 U.S.C. § 251(c)(3) (access must be provided "in a manner that allows requesting carriers to combine such elements in order to provide such telecommunications service").

[82] 47 U.S.C. §§ 206-208.

proven relatively noncontroversial. With respect to others - components of the local loop in particular - negotiations have been at a standstill. The ILECs have refused to budge and some have expressly stated that they will not discuss the topic seriously until the FCC requires them to do so. Thus, explicit FCC action is needed to force their hand.[83]

1. Local Loops

ACSI strongly supports the Commission's proposal to require ILECs to provide local loops as unbundled network elements.[84] Local loop unbundling plainly was contemplated by Congress which expressly cited the local loop as an example of a network element in its Joint Explanatory Statement[85] and expressly included the unbundling of local loops from the network as a precondition to BOC provision of in-region interLATA services.[86] Many states already have required that ILECs offer unbundled local loops, and ACSI has encountered no significant resistance in its interconnection negotiations regarding the availability of this element. Thus, there should be no debate over the technical feasibility of making unbundled local loops available.

However, the local loops offered so far -- while a good start -- in the end simply substitute one bundled ILEC bottleneck facility for another. To the extent that CLECs are dependent upon ILECs to provide all transport between the end user and the line side of the switch, CLECs remain hostage to ILEC pricing decisions and provisioning delays. The best

---

[83] A detailed listing of network elements which ACSI has requested during Section 251 negotiations is appended hereto as Attachment 1.

[84] *Notice* ¶ 94.

[85] Joint Explanatory Statement, p. 116.

[86] Section 271(c)(2)(B).

way to break up this ILEC monopoly over the last mile is for CLECs gradually -- where it makes economic sense -- to replace individual components of the ILEC local loop with their own facilities. The only way to do this is to require ILECs to make each individual component of the local loop available as discrete unbundled elements.[87]

Importantly, as the attached Declaration of Warren Liss, Vice President of Consulting Services at Lightwave Spectrum International, Inc., evidences, access to and use of individual components of the local loop is a critical part of ACSI's network plan for the provision of switched local services. As part of its interconnection proposal, and in meetings held with the ILECs on the issue, ACSI has made clear its desire to obtain access to unbundled components of the local loop.[88] In each case, ACSI's request has been refused. The ILECs have stated uniformly that they do not intend to unbundle the local loop, other than to separate an entire local loop from local switching.[89]

Thus, it is evident that negotiations on the subject cannot succeed without Commission prodding. ACSI commends and strongly supports the Commission's tentative conclusion that it "should require further unbundling of the local loop."[90] In its simplest form, a local loop is composed of loop "distribution," loop "concentrator" and loop "feeder" as depicted in the following diagram.

---

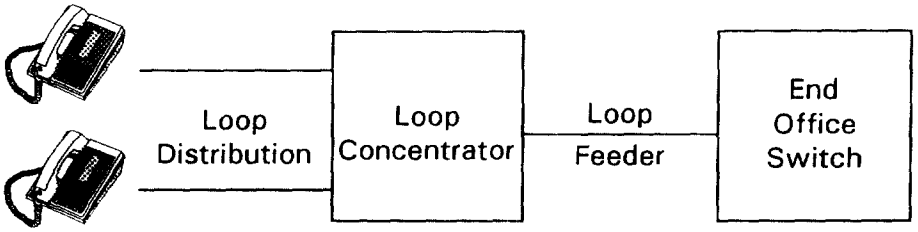
[87] The Illinois Commerce Commission refers to them as "loop subelements" and defines them as "components of the 'loop' offered as individual and separately available services and/or available at separately available interconnector points." Ill. Admin. Code, Tit. 83, § 790.10.

[88] Declaration of Warren Liss, ¶ 5, appended hereto as Attachment 2.

[89] *Id.* ¶ 6.

[90] *Notice* ¶ 97.

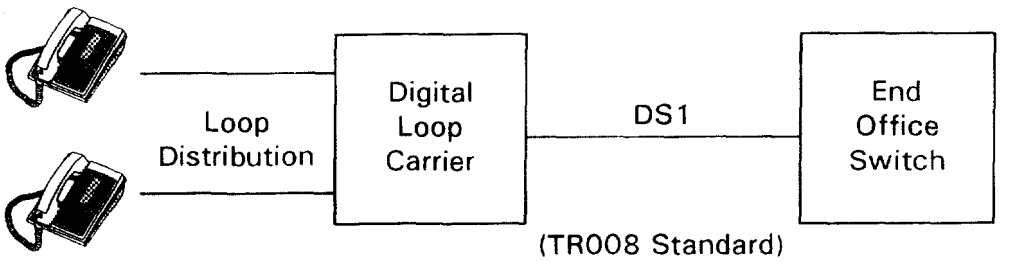
Figure 1



Loop "distribution" is the physical wire extending from the subscriber line pedestal to the customer premise. The loop "concentrator" is the point at which analog voice grade or digital loops are converged into high speed digital asynchronous transport; and the loop "feeder" is the medium by which the concentrated subscriber loops are connected to the end office switch. ACSI urges the FCC to make each of these components an individual network element that must be offered both as a package *and* separately. Moreover, the Commission should explicitly require that ILECs allow CLECs to interconnect on either side of any such loop subelement.

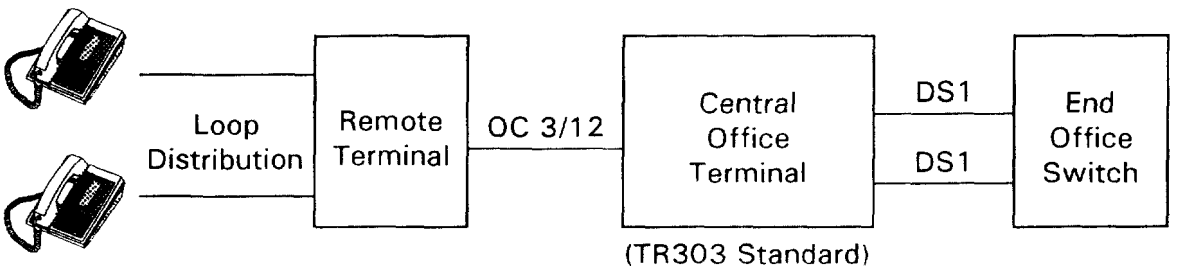
An important variation occurs when a Digital Loop Carrier system ("DLC") is deployed at the Main Distribution Frame ("MDF") or to a remote site to function as the front end of a switch. The DLC is used to assign and connect multiple incoming loop distribution elements to a smaller number of loop feeder channels. This service configuration can be depicted diagrammatically as follows:

Figure 2



And a critical emerging loop configuration involves the concentration of subscriber lines at a Remote Terminal ("RT") as follows:

Figure 3



Given that these digitally based loop configurations predominate at the business centers where many CLECs are likely to focus their early marketing efforts, and are the baseline for most future loop construction, it is especially crucial that unbundling of the individual components occur to the greatest extent feasible.

Generally speaking, there is no significant technical impediment to unbundling each of the subelements of the local loop -- loop distribution, loop concentrator, and loop feeder. Connection to the pedestal or similar network interface device is a simple matter of patching ACSI's (or another CLEC's) distribution network to the customer's inside wire. Where there is loop feeder, it connects to the SLC, DLC, or RT, which in turn connects to the loop distribution. Each of these connections is made via some sort of patch panel. ACSI and

other CLECs can easily connect to the ILEC's subelements at the patch point. Where no loop feeder exists, loop distribution is patched to the end office switch at the ILEC MDF. ACSI foresees no technical impediment to connecting with loop subelements at the MDF.

Faced with specific ILEC technical objections to generic unbundling of these loop components during interconnection negotiations, ACSI presented the ILECs with specific requests for loop subelement unbundling for five specific loop configurations.[91] For each of these specific loop configurations, ACSI explained to the ILECS why their technical concerns did not apply to these situations, and how ACSI intends to accomplish interconnection. In each instance, the ILECs have refused to discuss ACSI's proposals seriously, revealing that their objections to loop *subelement* unbundling are more strategic than technical.[92]

The complete unbundling and proper pricing of the local loop subelements may ultimately prove to be the most important issue addressed by the Commission in this proceeding. If the Commission is serious about breaking the ILEC stranglehold over the local network, as ACSI believes that it is, then meaningful loop subelement unbundling is a crucial starting point. Similar to its approach adopted in Illinois, ACSI proposes that the Commission require ILECs to offer specific loop subelements within 90 days after receiving a bona fide request for them.[93] ILECs should bear the burden of demonstrating that providing access to subelements is not technically feasible *at the specific locations* where interconnection is requested. ACSI requests that enforcement of this requirement be made

---

[91] *See* Declaration of Warren Liss, ¶¶ 7-8 & Figures B-F.

[92] Declaration of Warren Liss, ¶ 9.

[93] *See* 83 Ill. Adm. Code § 790-320(b) (the Illinois regulations require tariffing within 180 days).

through the Commission's Section 208 formal complaint process, with an award of all damages stemming from an ILEC's refusal to make loop subelements available on an unbundled basis.

2. Local Switching

ACSI also supports the Commission's tentative conclusion that ILECs should provide unbundled local switching as a network element.[94] In the Joint Explanatory Statement, the framers of the Act expressly cited local switching as an example of a network element.[95] Further, they established that the unbundling of local switching is a precondition under the 1996 Act to BOC provision of in-region interLATA services.[96] Thus, it is clear that Congress intended that local switching be unbundled from local loop transmission and interoffice transport, and offered as a distinct network element.

ACSI agrees with concerns expressed in the *Notice* over the trend in some states to define unbundled switching as a "port," which amounts only to an interconnection point to the ILEC network beyond the local loop.[97] ACSI believes that local switch unbundling must make available the functionality resident within the switch itself, including the capacity to switch traffic from line to line, line to trunk, trunk to line or trunk to trunk. Basic switch functions, such as dialtone, digit reception, number translations, screening, recognition of service request and call-specific information, digit analysis, routing, testing, recording, signal generation, call completion or handoff, SAP functionality and tables, PIC tables, trunk

---

[94] *Notice* ¶ 98.

[95] Joint Explanatory Statement, p. 116.

[96] Section 271(c)(2)(B).

[97] *Notice* ¶ 101.

tables, class of service tables, data ports for remote access to switching functions, CLASS tables and AIN tables, should also be included, as well as more advanced switch functions, such as call waiting, conference calling, signaling and Centrex.[98]

ACSI urges the Commission to require ILECs to make these switch functionalities available both as a group *and* separately. Rates should be set to recover TSLRIC costs. Flat per line charges should apply to line side connections, while usage based charges should apply to trunk side connections.

3. Local Interoffice Transport

ACSI further supports the FCC's proposal to require ILECs to provide access to unbundled interoffice transport facilities as network elements.[99] Again, it is evident that Congress intended that such local transport be offered on an unbundled basis, as it included the separation of local transport from local switching in the Act as a precondition to BOC provision of in-region interLATA services.[100] ACSI requests that the Commission adopt rules requiring ILECS to make both dedicated and switched transport available at the DS-0, DS-1, DS-3 *and* Optical Carrier (*i.e.*, OC-3/12/96/192) levels. These facilities should be offered as completely unbundled links between serving wire centers ("SWCs") and interconnector points-of-presence ("POP"), the central office and the SWC, the end office and the tandem, and the SWC and the tandem.[101]

---

[98] *See Notice* ¶ 99.

[99] *Notice* ¶ 104.

[100] Section 271(c)(2)(B).

[101] *See* Attachment A hereto.

Although ACSI does not object to the Commission's proposal to apply the current interstate transport rate *structure* to unbundled local transport elements, the Commission must also make clear that a different standard must be applied to determine price *levels*. As discussed hereafter, prices for unbundled elements must be set at TSLRIC, and thus will be considerably lower than current rates collected for access transport.

4. Databases and Signaling Systems

There can be no doubt that unbundling of the ILECs' databases and signaling systems is required under the Act. The Act's definition of "network element" expressly includes coverage of "databases" and "signaling systems."[102] As Senator Pressler remarked, "access to signaling and databases [is] important if you are going to compete and get into the market."[103] Thus, the issue is not whether databases and signaling systems must be offered on an unbundled basis, but which such databases and signaling systems exist, and under what terms and conditions they must be provided.

a. Databases

Access to ILEC databases is critical to support CLEC call routing and completion. Access to the Line Information Database ("LIDB"), for example, is important to identify presubscribed interexchange carriers. Another significant network database, Advanced Intelligent Network ("AIN"), is being deployed for the express purpose of using centralized databases to provide many call processing services. Access to still other databases is crucial to support billing, collection, ordering, provisioning and other non-call processing activities.

---

[102] 47 U.S.C. § 153(45).

[103] 141 Cong. Rec. § 8163 (June 12, 1995).

The databases in question are numerous and diverse. A partial listing includes:

* LIDB
* AIN
* Local Number Portability ("LNP")
* Directory Assistance ("DA")
* CRIS
* ITORP
* Operational Support System ("OSS") Database
* Installation/Order Processing Databases
* Local Calling Area Database
* CMAS System
* Number Assignment Database
* Emergency Services Database
* Toll Free Database

Each of these databases, and others, are fundamental to the CLECs' ability to provide service on par with ILECs.

However, since the number and character of such databases is constantly evolving, creation of a definitive list may prove difficult. Instead, what is needed is a general standard which obligates the ILECs to provide access to all ILEC databases on technical terms equal to that which they provide access to themselves and pursuant to prices set at TSLRIC. ACSI believes that the Louisiana PSC established a good model when it recently ordered unbundled access to all ILEC databases for all services which the ILEC provides itself, including 800 service, LIDB and AIN.[104] Recognizing that some information in such databases may be proprietary, ACSI agrees that it would be appropriate to specifically prohibit all interconnectors from accessing customer proprietary network information ("CPNI") in order to market its services. *See Notice* ¶ 115.

---

[104] *Regulations for Competition in the Local Telecommunications Market*, Louisiana PSC, General Order, released March 15, 1996.